

wilderness recommendation

WILDERNESS RECOMMENDATION

Grand Canyon National Park/Arizona

GRAND CANYON

NATIONAL PARK / ARIZONA

United States Department of the Interior/National Park Service

RECOMMENDATION

IT IS RECOMMENDED THAT WILDERNESS OF 980,088 ACRES WITHIN GRAND CANYON NATIONAL PARK, ARIZONA, AS SHOWN IN EXHIBIT A, BE DESIGNATED BY AN ACT OF CONGRESS.

THIS RECOMMENDATION IS BASED UPON CAREFUL STUDY OF THE PARK, THE VIEWS PRESENTED AT THE PUBLIC HEARINGS, AND THE WRITTEN RESPONSES CONCERNING THE PRELIMINARY WILDERNESS PROPOSAL DESCRIBED IN THE APPENDED HEARING OFFICER'S REPORT.

CONCLUSIONS

INTRODUCTION

Requirement for Study

This wilderness review was required by the Grand Canyon National Park Enlargement Act of January 3, 1975, as amended by the Act of June 10, 1975.

Public Hearings

The notice of public hearings on the Grand Canyon Preliminary Wilderness Proposal, and its draft environmental statement, appeared in the *Federal Register* on July 23, 1976. Subsequently, public hearings were held at St. George, Utah, on August 24; at Flagstaff, Arizona, on August 25; at Grand Canyon Village on August 26; and at Phoenix, Arizona, on August 27, 1976.

Wilderness recommendation has been delayed pending the development and approval of two interrelated and controversial plans. The Feral Burro Management Plan was approved on January 30, 1980 and will result in feral burros being removed from the canyon by live-trapping and shooting. The Colorado River Management Plan was approved on December 20, 1979 and will result in motorized craft being phased off of the river over a 5-year period. Both plans received extensive public review and comment from 1976 through 1980. This continuation of public involvement in the planning for Grand Canyon National Park is given in the final environmental impact statements for these two plans, FES 79-30 and FES 80-7.

Description of Preliminary Proposal

The Preliminary Wilderness Proposal included 992,046 acres proposed as wilderness and 120,965 acres proposed as potential wilderness additions. Potential wilderness additions consisted of the Colorado River corridor, Havasupai Traditional Use Lands, non-Federal lands, lands subject to private rights, and motor vehicle access corridors for maintaining water catchments on grazing allotments in the Sanup Plateau area.

Hearing Attendance

A total of 509 letters and written statements stemmed from the hearing and document review period. Forty-three oral statements were given at the public hearings, 23 of which were duplicated in written statements. Comments were received from 23 Federal agencies, 17 State agencies, 3 Indian tribes, 39 organizations, 24 companies, and 501 individuals.

Some groups or individuals submitted more than one letter, and some letters were signed by more than one individual. All letters were analyzed for substantive comments on the proposal.

Summary of Hearing Response

The response from individuals and organizations has been overwhelmingly in favor of the current proposal. Only 14 individuals out of 501, and 2 organizations out of 38, wanted less land designated as wilderness. A total of 431 individuals and 25 organizations recommended that hand-propelled, rather than motorized, craft be used on the river and that it be included as wilderness. Some 286 individuals and 25 organizations would further enlarge the area recommended for immediate wilderness designation by including all areas proposed as potential wilderness additions. Conservation organizations favor this approach along with the termination of motorized use of the river. The responses of companies engaged in commercial river trips were concerned with the issue of motors vs. no motors on the Colorado River in Grand Canyon National Park. On this issue, 13 companies were in favor of retaining motors, while 9 companies favored wilderness designation for the river and the elimination of motorized craft.

The Water Resources and Power Service, Arizona Power Authority, Arizona State Water Commission, Arizona Office of Economic Planning and Development, and the Hualapai Tribe object to wilderness status for the Colorado River and to the proposed repeal of the reclamation provision in Section 9(b) of the Grand Canyon National Park Enlargement Act (P.L. 93-620).

Another view was expressed by certain Federal and State agencies which are concerned with mineral development. They recommend that wilderness designation be delayed until a complete mineral inventory of the park has been made. However, by establishing this area as a national park, the Congress has set aside all resources to be preserved for the public enjoyment and benefit in an unimpaired state. Thus, the national park is closed to entry under the U.S. mining laws.

CORRECTIONS TO PRELIMINARY WILDERNESS PROPOSAL (APPENDED)

Page 10 of the preliminary proposal stated, "The corridor also contains the Bright Angel and Kaibab Trails"; it should read, "and *North* Kaibab Trail."

The description of wilderness Unit 3 on page 20 has been corrected to make clear that the Roaring Springs water supply system and pumping station complex and the area in the vicinity of and north of the Navajo Bridge were not intended for inclusion as wilderness or as potential wilderness additions. This redescription does not affect the acreages of the preliminary proposal.

The description of Unit 4 found on page 21 stated, "(The unit) is bounded on the north by the *south* bank of the Little Colorado River"; it should read, "by the *north* bank."

The gross acreage figure for the enlarged Grand Canyon National Park has not been determined since the boundary has not been finalized. Based upon the latest land status maps, a gross acreage of 1,226,656 will be utilized pending the finalization of a boundary line.

The following recommendations have resulted from careful consideration of the oral and written responses to the wilderness public hearings and further review of the preliminary proposal and management needs of Grand Canyon National Park including feral burro and river management.

ADDITIONS AND DELETIONS

The preliminary wilderness proposal recommended that the 17,009 acres of the Colorado River from Lees Ferry to river mile 277 be potential wilderness until such time as motorized craft were removed. As a result of the final Colorado River Management Plan, the final wilderness recommendation is to delete the 4,773 acres downstream

from Separation Creek from wilderness or potential wilderness. The remaining 12,236 acres of the river corridor are recommended as potential wilderness pending the phase out of non-wilderness use by motorized craft.

An area of about 9,642 acres in the southern Grand Wash Cliffs was not considered for wilderness or potential wilderness in the preliminary proposal because of a conglomerate of private, state, and subdivided lands with a multitude of owners. Title to all but 141 acres of state lands have now been acquired and the 9,642 acres are recommended as potential wilderness pending the obliteration of primitive subdivision roadways, and future acquisition of the small parcel of state land.

A section of land totaling 3,137 acres has been deleted from wilderness along the cross-canyon corridor to exclude the Kaibab Trail from wilderness.

Approximately 4,989 acres (including a 67-acre tract of private land), which were indicated as wilderness in the preliminary proposal, are now recommended as potential wilderness additions due to mineral reservations and repurchase rights within Unit 2 in the Toroweap Valley and on the Shivwits Plateau.

RECOMMENDATION

As shown on Exhibit A, lands totaling 980,088 acres are recommended for immediate designation as wilderness. An additional 131,814 acres are recommended as potential wilderness additions. The recommended potential wilderness additions are unsuitable at the present time due to outstanding rights which preclude management as wilderness or because of studies now in progress. It is proposed that these lands be designated as wilderness at such time as the Secretary of the Interior determines that the conditions which make them unsuitable have terminated. The suitability of the Havasupai Traditional Use Lands will be determined when the current study is completed for this area. The study of the Havasupai Traditional Use Lands will determine what uses may occur on these lands.

All other lands classed as potential wilderness additions are either in private or State ownership, encumbered by mineral reservations and repurchase rights, or are necessary for access corridors to maintain

water catchments to support grazing on the Sanup Plateau. When the grazing rights expire on the Sanup Plateau in 1985 and when other outstanding rights are acquired, these areas would also be designated as wilderness.

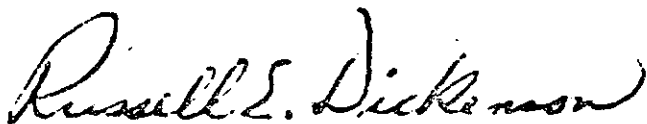
OTHER PROPOSALS RECONSIDERED

The proposal to include the Havasupai Traditional Use Lands as wilderness rather than potential wilderness additions was reconsidered. However, it is recommended that these lands remain as potential wilderness additions until the study concerning their use by the Havasupai Indians is completed.

The proposal to eliminate all lands from wilderness, which might be required if Congress should authorize a dam within the national park, was considered but not adopted. The present national park status conferred on this area by the Congress does not permit an impoundment within the Grand Canyon National Park. Under this status, the park lands are suitable for wilderness preservation. Since the present national park status may only be changed by the Congress, at some future time it could take such action and authorize an impoundment. Section 9(b) of the Grand Canyon National Park Enlargement Act provides for the utilization of lands formerly within the Lake Mead National Recreation Area for a Government reclamation project when consistent with the purposes of the park. Since no such projects have been identified on those lands, it is appropriate that Section 9(b) be repealed as not being consistent with wilderness preservation.

SUMMATION

In summary, 980,088 acres, or 80 percent of the park's total acreage, is recommended for immediate wilderness designation and 131,814 acres, or 11 percent of the park acreage, is recommended as potential wilderness additions.

A handwritten signature in cursive script, reading "Russell E. Dickinson". The signature is written in dark ink and is positioned above the printed name of the signatory.

Director, National Park Service

LEGEND

NATIONAL PARK BOUNDARY

WILDERNESS

NONWILDERNESS

HAVASUPAI USE LANDS

POTENTIAL WILDERNESS ADDITION

CONFEDERAL LAND

POTENTIAL WILDERNESS ADDITION

WATER RIGHTS REPURCHASE RIGHTS OR

OUTSTANDING MINERAL RESERVATIONS

POTENTIAL WILDERNESS ADDITION

LAKE MEAD N.R.A. & GLEN CANYON N.R.A.

MAJOR ROAD 600' CORRIDOR

MINOR ROAD 300' CORRIDOR

POWER LINE

ROCK WATER TANK

ROCK WATER TANK (DRY)

WATER

ACREAGE
(Pending Final Boundary Determination)

GROSS ACREAGE	1,226,656
FEDERAL	1,188,140
NAVAJO NATION	24,288
PRIVATE	393
STATE	

RIVER BED	11,860
OTHER	1,975

RECOMMENDED WILDERNESS

UNIT	WILDERNESS	POTENTIAL WILD. ADD.
1	13,575	9,642
2	757,275	116,883
3	209,238	5,289

TOTALS	980,088	131,814
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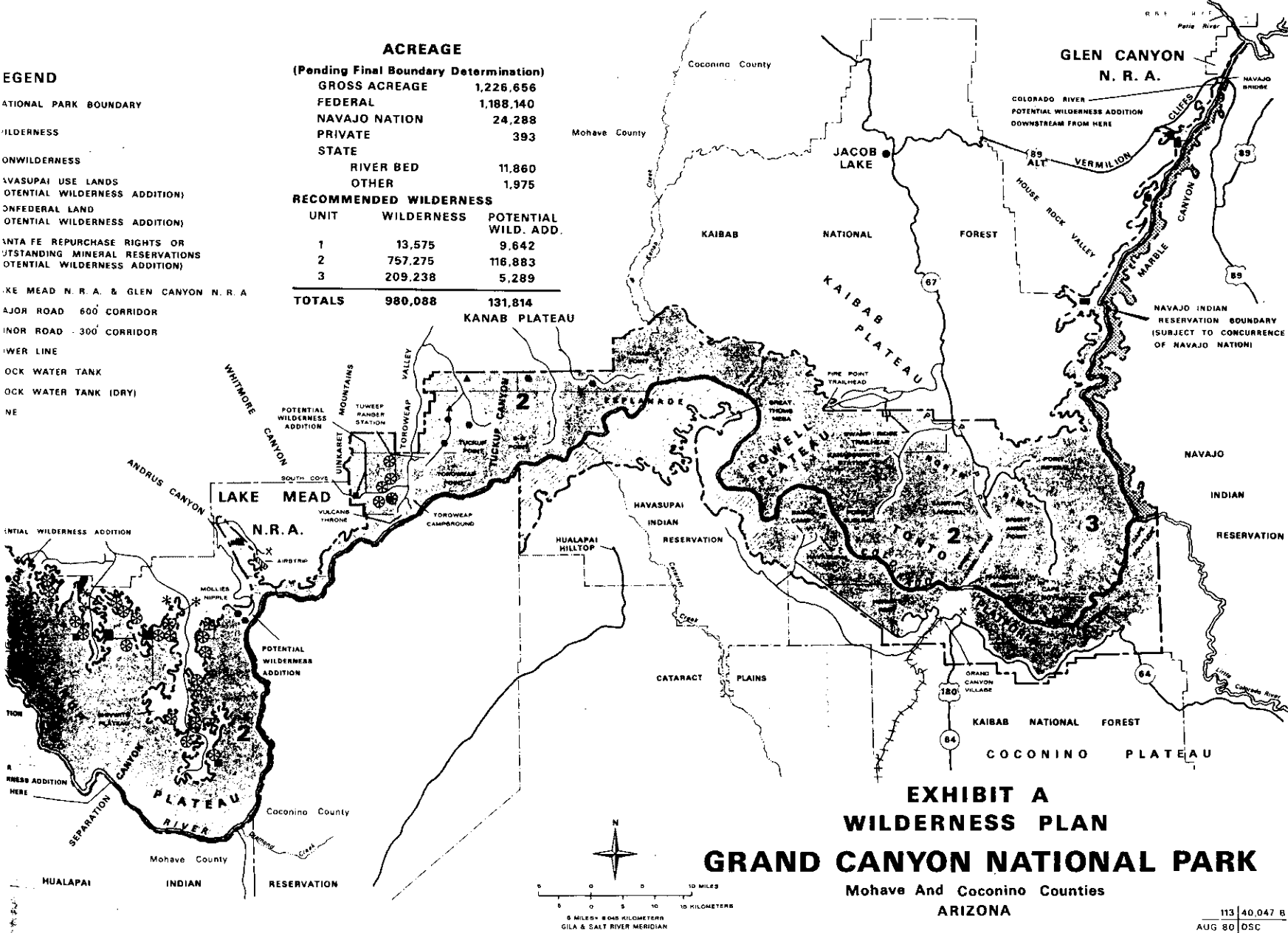


EXHIBIT A
WILDERNESS PLAN
GRAND CANYON NATIONAL PARK

Mohave And Coconino Counties
ARIZONA



United States Department of the Interior



NATIONAL PARK SERVICE
Grand Canyon National Park
P.O. Box 129
Grand Canyon, Arizona 86023-0129

IN REPLY REFER TO:

N1623 (GRCA 8213)

AUG 03 1993

Memorandum

To: Director, National Park Service
Through: Regional Director, Western Region *[Signature]* 8/9/93
From: Superintendent, Grand Canyon
Subject: Grand Canyon National Park Wilderness Recommendation

1994 marks the 75th anniversary of Grand Canyon National Park and the 30th anniversary of the Wilderness Act. We can not imagine a more fitting tribute to these two great milestones of conservation than to enact wilderness legislation for Grand Canyon National Park.

When Congress passed the Wilderness Act twenty-nine years ago, it directed the Park Service and other agencies to prepare wilderness recommendations for their lands. We are pleased to recommend wilderness designation for 1,139,077 acres in Grand Canyon National Park. Of this total, 1,109,257 acres are recommended for immediate designation as wilderness, and 29,820 acres are recommended for designation as potential wilderness pending resolution of boundary and motorized riverboat issues. Attached is our Wilderness Recommendation for the Grand Canyon National Park.

Two potentially controversial wilderness areas, the "Navajo Properties," and the Colorado River, at present do not meet wilderness suitability criteria and are included in the "recommended potential wilderness" category. While both issues are discussed in detail in the attached recommendation, the motor issue on the Colorado River deserves additional comment.

Recreational use of the Colorado River exceeds 20,000 visitors each year. Approximately 70 per cent of river runners travel by motorized boats operated by concessioners. While there is no question that the Colorado River passes through some of the most scenic wilderness characteristic of Grand Canyon, the current level of motorized boat use is inconsistent with the wilderness criteria established in Section 2(c) of the Wilderness Act. It is unlikely that the conservation community would support immediate wilderness designation with the existing motorized levels, nor would they likely support a Grand Canyon Wilderness bill that excluded the

#656

Colorado River. On the other hand, eliminating motors at this time would rekindle the motor-versus-oars controversy and possibly stall or kill wilderness designation for the remaining one million acres. We offer the "recommended potential wilderness" designation as a viable compromise. Potential wilderness designation would allow concessioners to continue operating their motorboats until resolution. Potential wilderness designation would demonstrate the NPS commitment to manage the river as wilderness, to the extent that existing nonconforming uses (motors) allow, and would commit the Department of the Interior to fairly resolve this issue in the foreseeable future.

Wilderness designation will assure the American people that the Grand Canyon will forever retain its primeval character and influence, and that present and future generations will enjoy vast canyons and plateaus as wilderness. National Park status directs the Department of the Interior to protect the Canyon's ecological integrity. Wilderness designation would provide the impetus and direction to protect wilderness qualities, both ecological and experiential, for present and future generations of Americans.

We anticipate that considerable staff work would be required to deal with interested publics on this matter; however, we are up to the task. Our strategy is to elicit support from environmental interests for the whole package, including "potential wilderness designation" for the river; and to assure river concessioners that we are dealing with them fairly. If you have questions on the package, please call me at (602) 638-7701. If there are additional details your wilderness staff needs, they can contact either Kim Crumbo or Jerry Mitchell at (602) 638-7757.

Sincerely,

A handwritten signature in dark ink, appearing to read "Robert Chandler", with a stylized, flowing script.

Robert Chandler

Enclosures (2)

cc: Wes Henry, WASO Wilderness Coordinator

FINAL WILDERNESS RECOMMENDATION



1993 Update

***Grand Canyon
National Park***

FINAL WILDERNESS RECOMMENDATION

1993 Update

GRAND CANYON NATIONAL PARK

ARIZONA

THE NATIONAL PARK SERVICE RECOMMENDS THAT WILDERNESS OF 1,139,077 ACRES WITHIN GRAND CANYON NATIONAL PARK, ARIZONA, AS DESCRIBED IN THIS DOCUMENT, BE DESIGNATED BY AN ACT OF CONGRESS. OF THIS TOTAL, 1,109,257 ACRES ARE RECOMMENDED FOR IMMEDIATE DESIGNATION, AND 29,820 ACRES ARE RECOMMENDED FOR DESIGNATION AS POTENTIAL WILDERNESS PENDING RESOLUTION OF BOUNDARY AND MOTORIZED RIVER ISSUES.

WILDERNESS RECOMMENDATION

I. Requirement for Study:

The Grand Canyon National Park Enlargement Act of January 3, 1975, as amended by the Act of June 10, 1975, required the National Park Service to prepare a wilderness recommendation. By September, 1980, the National Park Service submitted a wilderness recommendation consisting of 980,088 acres recommended for immediate designation, and 131,814 recommended for potential wilderness designation. Recent acquisition of grazing, mineral and other leases, and completion of land use studies has necessitated a revision of the recommendation. This update of the 1980 recommendation is based upon changes in the land status of recommended potential wilderness, the 1969 Field Solicitor's opinion regarding the western boundary of the Navajo Reservation, and refinements in acreage determined by the Geographical Information System. All changes presented are consistent with the letter or intent of the 1980 recommendation.

II. Wilderness Recommendation:

Two units totaling 1,139,077 acres are proposed for wilderness designation in Grand Canyon National Park. These units include about 94 percent of the park's total area. Of this total, 1,109,257 acres are recommended for immediate wilderness designation; and 29,820 are recommended for designation as potential wilderness, pending resolution of boundary and motorized riverboat issues. Represented within these units are examples of all the park's physiographic regions.

III. Wilderness Summary: The Grand Canyon recommended wilderness (1,139,077 acres) consists of two units:

A. Unit 1 (1,121,840 acres):

(1) Grand Wash Cliffs:

Gross Acreage:	23,078 acres
Wilderness Acreage	23,078 acres
Non-wilderness	00,000 acres
Recommended Immediate Designation:	23,078 acres
Recommended Potential	00,000 acres

(2) Western Park:

Gross Acreage:	876,105 acres
Wilderness Acreage	865,428 acres
Non-wilderness:	10,677 acres
Primitive Road Corridors:	3,230 acres

Great Thumb:	7,447 acres
Recommended Immediate Designation:	857,471 acres
Recommended Potential Wilderness:	7,957 acres
- River (Mile 88-239.5):	7,890 acres
- Curtis-Lee Tracts:	66.67 acres

(3) Eastern Park:

Gross Acreage:	235,007 acres
Wilderness Acreage	233,334 acres
Non-wilderness Road Corridors	
(Paved, 600-foot-wide corridor):	1,673 acres
Recommended for Immediate Designation:	228,708 acres
Recommended Potential Wilderness:	4,626 acres
- River (Mile 4.5 to 87.1):	4,300 acres
- Hearst Properties:	325.87 acres

B. Unit 2: Navajo Properties (17,237 acres):

Gross Acreage:	17,237 acres
Non-wilderness	00,000 acres
Recommended for Immediate Designation:	00,000 acres
Recommended Potential Wilderness:	17,237 acres

IV. Description of the Wilderness Units:

A. UNIT 1 (1,121,840 acres):

(1) Grand Wash Cliffs:¹ This area, consisting of 23,078 acres, contains the Grand Wash Cliffs escarpment on the south side of the Colorado River. The cliffs are generally considered to be the western boundary of the Grand Canyon.

9,642 acres of this area were previously recommended as potential wilderness, pending acquisition of a small parcel of state land and the obliteration of primitive subdivision roadways. Title acquisition for these lands is complete.² The entire area is recommended for immediate designation.³

- Legal Description: The Grand Wash wilderness is located in the extreme western portion of the park. It is bounded on the north by the 1229-foot contour of Lake Mead reservoir,⁴ and on the west, south, and east by the Park boundary.

(2) Western Park: Approximately 865,428 acres west of the North Rim and South Rim developed areas are included within this large region. Many of the natural and geographic wonders of the Grand Canyon, its

associated side canyons, plateaus and mountain ranges are represented here.

- **Legal Description:** The area is bounded on the north by the Park boundary, on the west by the Park boundary; on the south by the north bank of Lake Mead reservoir (1229-foot contour⁵) to mile 139.5;⁶ then directly south across the river to the Park boundary⁷ in an easterly direction to Uquella Point on the rim of the Great Thumb; then along the rim of the Great Thumb in a northerly direction to Great Thumb Point; then along the rim in a southerly direction to the main drainage of Forster Canyon; then along said drainage in an easterly direction to the Park boundary; then along the Park boundary in an easterly direction to Pasture Wash road corridor (300-foot wide) a distance of approximately 600 feet due west of BM 6296 paralleling the road, until intersecting the boundary road 1,650 feet north of BM 6296, and then paralleling this road from that point 150 feet north of the south boundary of the park to the 1/16 line in Section 29 approximately 0.9 mile east of BM 6456, then north to the South Rim, then following the South Rim to Powell Point; on the east by the ridge extending from Powell Point to the inner canyon rim to BM 3702 and then north to the south bank of the Colorado; then east to a point 0.1 mile west (River Mile 88) of the Silver Bridge; then north by a rim .1 mile west of Bright Angel Creek and paralleling it to a ridge ascending to Bright Angel Point, then following the North Rim to a point 0.5 mile northeast⁸ of Bright Angel Spring, then due northwest a distance of 1.2 miles to an unnamed drainage, then along same drainage to its intersection with W-1, a point immediately west of the landfill on W-1, then north along unnamed drainage to Hades Lake, then northerly paralleling 0.1 mile west of W-1A and Highway 67 to the Park boundary.

Special consideration of each of the unit's geographic areas is necessary for clarity.

(a) **Havasupai Traditional Use Lands:** The 1975 Grand Canyon Enlargement Act dealt directly with the question of occupancy and use of the lands of Grand Canyon National Park. First, it declared a reservation of approximately 185,000 acres to be held in trust for the Havasupai Tribe, and specified conditions on the uses of those trust lands.⁹

The Act also provided for an additional 95,335 acres as "Havasupai Use Lands" within Grand Canyon National Park where the Secretary may allow tribal uses "subject to

such reasonable regulations as he may prescribe to protect the scenic, natural, and wildlife values thereof."¹⁰ Congressional intent to include these lands within the wilderness recommendation was explicit.¹¹

The 1980 wilderness recommendation proposed the 95,335-acre Havasupai Use Lands as a potential wilderness addition, pending the outcome of a range capacity and terrestrial ecosystem study.¹² That study was completed in November of 1982 and described the grazing potential as "very low." The study concluded that grazing by domestic livestock would be uneconomical and damaging to the environment.¹³ It was further concluded as unlikely that any portion of the Havasupai Use Lands would economically support domestic grazing. Should the Havasupai Tribe desire to maintain "existing water catchments at springs and conduct minor improvements at others,"¹⁴ these actions alone would not disqualify the area as wilderness.¹⁵

Approximately 7,447 acres on the Great Thumb between the Park boundary and the rim are excluded from wilderness to provide the Havasupai people mechanized access to their reservation lands, and to allow continued mechanized access to the 140 Mile Canyon trailhead. The dramatic, precipitous rim provides a logical, easily identifiable wilderness boundary. In addition, implementing wilderness management objectives within the one-quarter mile strip between the Havasupai Reservation boundary and the rim would be difficult at best.

(b) Sanup Plateau: The broad expanse of this plateau is flanked on the north by the towering cliffs of the intruding Shivwits Plateau. The Sanup is contiguous to six NPS proposed wilderness units within Lake Mead National Recreation Area (170,390 acres).¹⁶ From the south side, canyons probe the interior of the plateau. Included are the well-known Separation Canyon and nearby Surprise Canyon. The contrasting cliffs looming above, and the incised canyons providing views below, allow for an isolated viewing experience in an area that has always been wild.

Four road corridors in the Dry Canyon and Parashant Canyon vicinity were identified to remain open until grazing permits expired in 1985.¹⁷ These corridors are abandoned and recommended for immediate wilderness designation.

The Lee and Curtis Tracts (66.67 acres) comprise the

plateau's potential wilderness additions.

(c) Uinkaret Mountains: The southern extension of this range, sometimes referred to as the Pine Mountains, contains peaks in excess of 7,000 feet, offering a contrast to the Colorado River over a mile below. Pine forests grow on the north-facing slopes with an occasional patch of Douglas fir. The area is noted for its fine deer habitat. Panoramic views of the Grand Canyon region are available from the higher points along the range. Wilderness designation would complement contiguous wilderness areas, such as the Mt. Logan Wilderness (BLM, 14,600 acres), and the nearby Mt. Trumbull Wilderness (BLM, 7,900 acres). Natural restoration is occurring on approximately three miles of abandoned primitive roads within the Uinkaret Mountains.

(d) Toroweap Valley: This geographic area is bounded by the picturesque Uinkaret Mountains on the west and by the limestone Toroweap Cliffs on the east, rising 2,000 feet above the valley floor.

Ten miles of primitive roads in Toroweap Valley are closed now that lifetime grazing leases have expired.¹⁸ These primitive roads will be allowed to return to a natural state. A landfill will be phased out and restored to a natural condition.

The minor road corridor (300-feet wide) through Toroweap Valley (T-1), 6 miles in length; the Toroweap Campground together with the corridor on the west side of Vulcans Throne (T-5), 2 miles in length; and the Toroweap Ranger Station will be excluded from wilderness designation.

(e) Kanab Plateau:

- **Tuckup Point:** This area is characterized by flat to gently rolling expanses of pinyon and juniper woodlands. These lands present a contrast to the Esplanade and inner canyon below. The extension of wilderness to these uplands provides an uninterrupted wilderness through an area preserved for its primitive natural character and geological significance.

Two minor road corridors, about 16 miles in length, will be retained, one to the Tuckup Canyon trailhead and the other to Toroweap Point Overlook. All other roads and four water catchments will be allowed to return to a natural condition. With the exception of the road corridors, the entire point is proposed as wilderness.

- **SB Point:** This area offers the same setting and

relation to the Esplanade and inner canyon afforded by Tuckup Point. The old Jensen Tank grazing allotment permit has expired. A minor non-wilderness road corridor will provide mechanized access to SB Point Overlook and the 150-Mile Canyon--Tuckup trailhead. In addition, a primitive mechanized road corridor to the Kanab Point overlook will be excluded from wilderness. The remaining primitive roads are closed and will be returned to a natural state.

(f) North Rim: The relatively cool and wet Kaibab Plateau offers a wilderness where the solitude of the forests can be enjoyed, complementing wilderness proposed in the desert areas surrounding the plateau. The North Rim of the Grand Canyon represents the last wilderness remnant (approximately 20%) of the original ponderosa-mixed conifer ecosystem found on the Kaibab Plateau.¹⁹

Fire management, including prescribed burning, is now being applied on the North Rim to reduce the buildup of fuels which have accumulated during 80 years of fire suppression. This change in management philosophy has allowed the Park to close approximately 41.5 miles of roads previously needed for fire control purposes.

The Point Sublime Road (W-1; 15.5 miles) and a 300-foot-wide, non-wilderness corridor will be retained in a primitive state to provide mechanized access. Point Sublime will be excluded from wilderness for the purpose of providing an overlook site.

The historic Kanabownits fire tower and cabin will be excluded from wilderness for administrative purposes.

Swamp Point road (W-4; 8.7 miles), including a 300-foot-wide corridor, is not proposed for wilderness to allow for mechanized access to the Powell Plateau--North Bass trailhead. The sanitary landfill adjacent to W-1 will be excluded from wilderness.

As the natural fire regime is achieved, administrative use of six (approximately 30 miles) primitive roads²⁰ will be phased out. Access to the interior of the North Rim wilderness will be by foot, horseback, or by helicopter should it be necessary to control fires that may endanger human life, property, or adjacent lands.

(g) Esplanade: The Esplanade is the broad plateau that extends from the base of the limestone cliffs to the rim of the red rock of the inner canyon. It is subdivided by numerous side canyons extending north from the main artery of the inner canyon.

(h) Tonto Platform: The flattest continuum on both sides of the inner gorge of the Colorado River in the central and eastern portions of the Park is the Tonto Platform. It is more than a mile in width in many places and is a major portion of the proposed wilderness in Unit 1. The Tonto Platform lies predominantly below 4,500 feet and is cut by numerous canyons tributary to the Colorado River.

(i) Inner Canyon: Within the near-vertical walls of the inner canyon flows the Colorado River, the lifeblood and creator of the Grand Canyon. Tributaries feed the mighty river as they have through eons of time, providing force to the cutting edges of soil suspended in the rushing water. Red rock walls of changing colors provide a curtain that encompasses the gorge to the rim of the Esplanade.

(j) South Rim (west of Hermits Rest): Excluded from wilderness are the Pasture Wash Ranger Station and a minor road corridor 6 miles in length (300-feet wide) to Bass Trailhead and to Havasupai Point. In addition, a small area for a trailhead at South Bass and an overlook at Havasupai Point will be excluded.

(k) Recommended Potential wilderness:

- **Colorado River:** consists of approximately 7,890 acres of the Colorado River Corridor from Mile 88 to Separation Rapid (Mile 239.5).

- **Curtis-Lee Tracts:** 66.67 acres of private land.

(l) Non-wilderness:

- **Great Thumb:** A quarter-mile wide corridor between the Park boundary and the rim will be excluded from wilderness to permit vehicular access to the 140-Mile Canyon trailhead, and to permit the Havasupai people access to reservation lands on the Great Thumb.

- **North Rim Primitive Roads:** Point Sublime (W-1) and Swamp Ridge (W-4) primitive road corridors.

- **Kanab Plateau Primitive Roads:** Kanab Point, Tuckup Point--Tuckup Canyon Trailhead, and the SB Point--150 Mile Canyon Trailhead primitive roads.

(3) Eastern Park:

The main features of this 233,334-acre unit are Marble Canyon, the North Rim area and associated viewing points east of Highway 67, and the inner canyon region with its

numerous plateaus, shrines, thrones, gates, temples, Colorado River, and other colorful features which add to the breathtaking beauty of the Grand Canyon. Marble Canyon includes the narrow northeasterly segment of the unit where the Colorado River is confined in comparison to the broad expanse of erosional remnants found beyond Nankoweap Rapid. Also included are the Palisades of the Desert and the adjacent rim lands. The 12-mile road corridor to Cape Solitude is closed to mechanized access.²¹

- **Legal Description:** This wilderness area is bounded on the north by the Park boundary to a point on the boundary 1.0 mile east of BM 8801 then south 0.6 mile, then west 0.6 mile to a line in a southeast-to-northwest orientation, 0.3 mile east of BM 8737 extending through BM 8801; on the west by the above described orientation about 4.8 miles south intersecting a point 300 feet north of the centerline of Highway 67 and paralleling the highway south to a point 300 feet west of the intersection of Highway 67 with the Cape Royal--Point Imperial Road; then 0.9 mile along a line in a southeast-to-northwest orientation [extending from said intersection to Roaring Springs] to Roaring Springs Canyon, then to a line 0.1 mile east of and paralleling the easterly edge of an intermittent stream flowing through the base of Roaring Springs Canyon until intersecting the base of the Redwall Limestone, then along the Redwall on the east side of Roaring Springs Canyon leaving the Redwall north of Roaring Springs, and then southeasterly intersecting a point on Bright Angel Creek approximately 0.1 mile northeast of the confluence of the intermittent stream in Roaring Springs Canyon and Bright Angel Creek,²² then paralleling Bright Angel Creek a distance of approximately 0.1 mile east to a point approximately 0.1 mile north of the confluence of Bright Angel Creek with the Colorado River, then along a line approximately 0.1 mile north of the Colorado River to a point 0.5 mile northeast of the mouth of Bright Angel Creek on the high-water line of the north bank of the Colorado River Mile 87.1; then directly south across the river and up the unnamed ridge in a southeasterly direction to the Tonto Rim;²³ then westerly to a point along the Tonto Rim 0.1 mile from the Kaibab Trail; then paralleling the Kaibab Trail a distance of approximately 0.1 mile east to the South Rim at Yaki Point; then in an easterly direction along the south rim to a drainage approximately 1.0 mile southeast of Desert View Watchtower²⁴ [0.15 mile west of ridge 7047]; then in a southeasterly direction .05 mile to a jeep road; then in a northeasterly direction along said jeep road to south fork of Straight Canyon and BM 6446; then in a southerly

direction along Straight Canyon to the park boundary; then in a northerly direction along the park boundary to a point 0.1 mile south of Navajo Bridge;²⁵ then directly across the river to the park boundary, and then in a southerly and westerly direction along the park boundary to a point on the boundary 1.0 mile east of BM 8801.

(a) Potential Wilderness:

- **Private Lands:** Potential wilderness additions consist of the 326-acre Hearst properties near Sockdolger Rapid.

- **Colorado River:** Consists of approximately 4,300 acres (82.6 miles; Mile 4.5 to Mile 87.1).²⁶

(b) Non-wilderness: North Rim Paved Roads: Excluded from wilderness will be major road corridors (600 feet wide) to Point Imperial and to Cape Royal, including the point.

B. UNIT 2: The Navajo Indian Properties:

These lands comprise an approximately 17,237-acre²⁷ inholding within the authorized boundary of Grand Canyon National Park, including all lands generally west of the Marble Canyon Rim (the authorized boundary of the Park as specified by the 1975 Enlargement Act) and east of the NPS boundary located one-quarter mile from the east bank of the river.²⁸

VI. ENDNOTES:

1. Actually, the entire Grand Wash Cliffs wilderness study area consists of three contiguous parcels administered by three distinct governmental entities. The total area is approximately 39,000 acres. Adjacent to Unit 1 are the 14,020-acre Pearce Ferry (Lake Mead National Recreation Area) recommended wilderness unit and the Bureau of Land Management's Grapevine Wash Wilderness Study Area (#2-014).

2. Master Deed printout, 04/30/92 copy on file at Division of Resources Management, Grand Canyon National Park. The Master Deed Listing, Status of Lands also shows that the 141.36 acres of State land were acquired in 1986.

3. The 1980 "Final Wilderness Recommendation" (modified 1977 Wilderness Recommendation), p.16, states:

An area of about 9,642 acres in the southern Grand Wash Cliffs was not considered for wilderness or potential wilderness in the preliminary proposal because of a conglomerate of private, state, and subdivided lands with a multitude of owners. Title to all but 141 acres of state lands have now been acquired and the 9,642 acres are recommended as potential wilderness pending the obliteration of a primitive subdivision roadway, and future acquisition of the small parcel of state land.

Since that time title for all lands has been acquired (See Master Deed printout, 04/30/92).

4. This is level of Lake Mead described in the 1986 Lake Mead General Management Plan. U.S. Department of Interior, National Park Service. 1986. "Final Environmental Impact Statement for the General Management Plan for Lake Mead National Recreation Area." Two volumes. Denver, CO.: Denver Service Center. Volume I, page iii.

5. See endnote number 4.

6. The river corridor area downstream of Separation Canyon was deleted as potential wilderness in 1980. See National Park Service. 1980. "Final Wilderness Recommendation for Grand Canyon National Park" (Modified 1977 Wilderness Recommendation). Document on file at the Division of Resources Management, Grand Canyon National Park, p.16.

7. The Park boundary consists of the south bank historic high water line of the Colorado River from Separation Canyon (River Mile 239.5) to River Mile 164.6. This interpretation is based on the Grand Canyon Enlargement Act (September 3, 1964, Public Law 88-577.

78 Stat. 890), Section 3(a) which expanded Grand Canyon National Park to include "approximately one million two hundred thousand acres, located within the boundaries as depicted on the drawing entitled 'Boundary Map, Grand Canyon National Park,' numbered 113-20. 021 B and dated December 1974 [copy on file at the Division of Resources Management, Grand Canyon National Park]." That map describes the boundary as the "South Bank of Colorado River (River Mile 164.8 to 273.1)." The December 1976 "Boundary Description of Concurrent Criminal Jurisdiction of Grand Canyon National Park [copy on file at the Division of Resources Management, Grand Canyon National Park]" reflects the congressional intent specified in the Enlargement Act, and describes the boundary as the "high water line on the South bank of the Colorado River, river mile 164.8....[to] river mile 273.1." See also U.S. Department of the Interior. 1976. "Solicitor's Opinion regarding the Hualapai Indian Reservation--Grand Canyon National Park boundary at the Colorado River." Memorandum on file at Division of Resources Management, Grand Canyon National Park.

8. The description in the 1980 "Wilderness Recommendation," p.35[14], states: "...then following the north rim to a point .1 mile southwest of Bright Angel Spring." The 1962 15-minute quad (Grand Canyon and Vicinity, N3600-W11145/28X60) places Bright Angel Spring approximately 0.1 mile northeast of the intersection of an unnamed drainage containing Bright Angel Spring and the 8,000-foot contour. The new 1988 7.5 minute quad (Bright Angel Point, Arizona) places Bright Angel Springs approximately 0.5 mile southwest of the same point.

9. The 1975 Grand Canyon Enlargement Act stated that the new reservation lands may be used for traditional purposes and are available for agriculture and grazing purposes on a sustainable basis. The Act called for a study of lands uses that "shall not be inconsistent with, or detract from, park uses and values." The Act further stated that no commercial mining or mineral production, timber production, or commercial or industrial development would be permitted on the reservation lands. Hunting and recreational uses of the lands by non-members is permitted, and except for the uses specified, the lands were to remain "forever wild and no uses shall be permitted...which detract from the existing scenic and natural values of such lands." 16 U.S.C. 228i(b)(7).

10. U.S.C. 228i(e).

11. See the "Joint Statement of the Committee of Conference, Conference Report [to accompany S1296]," Report No. 93-1611, December 17, 1974, p.7:

In this connection, the conferees specifically noted that the lands designated by the Act as "Havasupai Use Lands" -- which are entirely within the park boundaries -- should be considered by the Secretary in making any

recommendations for a wilderness area within the Grand Canyon National Park notwithstanding allowed tribal uses.

12. 1980. "Final Wilderness Recommendation," p.44-45 [23-24].

13. U.S. Department of Agriculture, Forest Service. 1982. "Range Capacity and Terrestrial Ecosystem Evaluation of the Havasupai Traditional Use Lands." Document on file at the Division of Resources Management, Grand Canyon National Park.

14. 1980. "Final Wilderness Recommendation," p.48.

15. U.S. Department of Interior, National Park Service. 1988. Management Policies. Washington, D.C.: Government Printing Office. Chapter 6:5; 6:9.

16. These areas include Lake Mead Wilderness Unit 31 (Cockscomb, 16,480 acres), Unit 32 (Grand Wash Cliffs, 12,100 acres), Unit 33 (Shivwits, 83,980 acres), Unit 34 (Andrus Point, 14,905 acres), Unit 35 (Whitmore Point, 32,215 acres), and Unit 36 (Lava, 10,710 acres).

17. 1980. "Final Wilderness Recommendation," p.38(17).

18. Grand Canyon National Park Enlargement Act. 1975. Act of January 3, 1975. Public Law 93-620. 88 Stat 2089; Sec.7. The Act states "That no such renewals [grazing lease, permit, or license] shall be extended beyond the period ending ten years from the date of enactment of this Act, except that any present lease, permit, or license within the boundaries of the Grand Canyon National Monument as abolished by subsection 3(b) of this Act may be renewed during the life of the present holder which renewal shall terminate upon the death of the present holder. That lease, according to the Master Deed printout (04/30/92), has expired. See also, U.S. Department of the Interior, National Park Service. 1980. "Final Wilderness Recommendation," p.38(17).

19. The North Kaibab Ranger District reports (Brian Avery, March, 1992) the following acreage:

- Grass and sage: 136,000 acres.
- Mixed conifer: 60,000 acres.
- Ponderosa: 157,000 acres.
- Pine Mix (PJ-oak-mixed conifer): 132,000
- Spruce-fir: 22,000
- Pinyon-juniper: 149,000

According to these figures, the total acreage for the North Kaibab Ranger District is 656,000 acres. The total acreage for mixed conifer, ponderosa, pine mix, and spruce fir for the Forest is approximately 371,000 acres. This figure added to the NPS acreage 9,500, based upon the GRCA GIS system estimate for ponderosa,

mixed conifer, and mixed grass and forbs) is approximately 470,000.

Total acreage of 755,000 acres for the Kaibab Plateau is based upon the 656,000 acreage for the North Kaibab Ranger district and the NPS 99,500 acres. The total Kaibab Plateau wilderness (202,000 acres) consists of the canyonlands of Kanab Creek Wilderness (61,890 acres), the predominantly pinyon-juniper, sage and grasslands of the Saddle Mountain Wilderness (40,610 acres), and the boreal forests of the proposed Grand Canyon wilderness.

20. These six primitive fire roads are: E-4 (Komo Point), E-5 (Francois Matthes Point), E-6 (Walhalla Glades), W-1C (Widforss Point), W-1D (Tiyo Point), and a portion of W-4 (the junction of W-4 with W-1 to Tipover Springs).

21. See 1980 "Wilderness Recommendation," p.42(28).

22. The 1980 "Wilderness Recommendation," p.15. emphasized that the Roaring Springs water supply system and pumping station complex were not intended for inclusion as wilderness or as potential wilderness additions.

23. The 1980 "Wilderness Recommendation," p.16 (also see 1980 Map [exhibit A]) called for the deletion from wilderness the Kaibab Trail and the area between the Kaibab Trail and Bright Angel Trail.

24. The original (1977) description (Unit 4, pp.41-42) defined the boundary as "on the south by the South Rim and Straight Canyon." Straight Canyon does not cross the Rim, so the jeep road is presented as a definable boundary.

25. The preliminary (1977) "Wilderness Recommendation" extended the proposed wilderness to the Paria, however the 1980 recommendation, p.15, stated that the area in the vicinity of and north of the Navajo Bridge was not intended for inclusion as wilderness or as potential wilderness. See also 1980 Map (Exhibit A) that presents the boundary as a point immediately south of Navajo Bridge. 0.1 mile was chosen as a consistent unit for corridor exclusions.

26. See endnote 25.

27. The 1989 Land Protection Plan for Grand Canyon (p.1) specifies 24,288 acres as inholding. Recent evaluation through the Park's Geographic Inventory System (GIS) indicates that the total acreage for the inholding (between the rim and the NPS boundary located one-quarter mile east of the river) is 17,237. The GIS acreage between the river and rim is approximately 23,247 acres.

28. See "Location of the Boundary between the Navajo Indian Reservation and Marble Canyon National Monument, Arizona." June 16, 1969. Memorandum from the Field Solicitor, Santa Fe; to the

Regional Director, Southwest Region, National Park Service. Copy on file at the Division of Resources Management, Grand Canyon National Park. See also a letter, November 29, 1991, from the BLM Deputy State Director to the Superintendent, Glen Canyon National Recreation Area, copy on file at Division of Resources Management, Grand Canyon National Park. The BLM conducted its own review of this issue and concluded that the west boundary of the Navajo Indian Reservation is one quarter mile east of the Colorado River.

APPENDIX I POTENTIAL WILDERNESS

There are five areas, or approximately 29,820 acres, recommended for designation as "potential wilderness" pending resolution of issues which affect the wilderness suitability of each unit. These issues have been analyzed in the formulation of the proposed wilderness.

1. Navajo Properties: The Grand Canyon National Park Enlargement Act (January 3, 1975; Amended June 10, 1975. Public Law 94-31. 88 STAT 2089. Sec.4[a]) states: "[w]ithin the boundaries of the Grand Canyon National Park, as enlarged by this Act, the Secretary of the Interior...may acquire land and interest in land by donation, purchase with donated or appropriated funds, or exchange." No action to date has been taken on these lands under this provision of the Act. These lands comprise an approximately 17,237-acre¹ inholding within the authorized boundary of Grand Canyon National Park. The Navajo Indian Reservation unit consists of all lands generally west of the Marble Canyon rim (the authorized boundary of the Park as specified by the 1975 Enlargement Act) and east of the NPS boundary located one-quarter mile from the east bank of the river. Although none of the Navajo Properties were included within the 1980 Wilderness Recommendation, the 17,237-acre inholding (beyond one-quarter mile east of the river to the rim) will be recommended potential wilderness until Navajo Tribal concurrence regarding land and interest acquisition through "donation, purchase..., or exchange" is obtained.² Acquisition of these lands or rights needs to be pursued with the objective of eventual Federal ownership of all lands within the park's authorized boundary.

In addition, the disputed boundary issue between Grand Canyon National Park and the Navajo Reservation needs resolution. The Navajo Tribe claims ownership of the entire 23,247-acre area from the river to the rim. Based upon the Field Solicitor Opinion,³ the National Park Service maintains that the Park boundary lies one-quarter mile east of the Colorado River, and that approximately 6,000 acres previously classified as reservation lands actually comprise part of Grand Canyon National Park. These lands are recommended for immediate wilderness designation.

2. The Colorado River: Two hundred and forty miles of free-flowing river lie within Grand Canyon National Park. The area of the river corridor in the eastern Park (0.1 miles downstream of Navajo Bridge to Mile 87.1, or 82.6 miles) is approximately 4,300 acres. The river corridor in the western Park extends from 0.1 miles west of the Silver Bridge (Mile 88) to Separation Canyon (Mile 239.5), approximately 151.5 miles, or approximately 7,890 acres. Total acreage for the river corridor is approximately 12,190 acres.⁴

The non-conforming use identified in the 1980 Wilderness Recommendation was motorized riverboat use. Current recreational use of the Colorado River exceeds 20,000 visitors each year, 70 per

ment of whom travel by motorized rafts operated by concessioners. While there is no question that the Colorado River passes through some of the most scenic wilderness characteristic of Grand Canyon, the current levels of motorized boat use probably contradict the intent of wilderness designation. This use is inconsistent with the wilderness criteria of providing outstanding opportunities for solitude and for a primitive and unconfined type of recreation.⁵

It is recommended that the river corridor be designated a potential wilderness addition, pending resolution of the motorized riverboat question. A special provision is recommended for Grand Canyon wilderness legislation giving the Secretary of the Interior the authority to designate "recommended potential" as wilderness, at such time he determines they qualify.⁶

3. Private Lands: There are 392.54 acres of private land within the wilderness recommendation:

a. The Lee and Curtis Tracts (66.67 acres): These tracts consist of 34.45 and 32.22 acres respectively. These areas are identified for fee acquisition, either through donation with exchange and negotiated purchase to be considered in the event donation is not possible.⁷ Until fee acquisition is attained, these tracts will remain recommended as potential wilderness.

b. Hearst Properties: These privately owned lands comprise 325.87 acres. Mining activity last occurred in this area in the late 1950's, and remains of historic mining developments are still present. The tract consists of very steep terrain. It is located near the north bank of the Colorado River in the southeast portion of the park. Access to the tract is by foot trail, river, or helicopter. Development of the tract for resort or residential uses, or the resumption of mineral extraction activities, would conflict with preservation of the area's wilderness values. The Land Protection Plan recommends fee acquisition, with donation or exchange as the preferred acquisition method.⁸

4. Other Unresolved Issues:

- **State Ownership:** The State of Arizona holds fee title to the bed of the Colorado River, amounting to approximately 11,860 acres. Acquisition of these tracts through exchange is the number two priority identified in the 1989 Land Protection Plan.⁹ State ownership of the river bed does not preclude wilderness designation.¹⁰

- **Hualapai Boundary:** The Hualapai Tribe claims title up to the middle of the Colorado River (Mile 164 to Mile 273.5). The National Park Service, based upon the Grand Canyon Enlargement Act (September 3, 1964, Public Law 88-577. 78 Stat. 890), Section 3(a); and the 1976 Department

of Interior Solicitor's Opinion, claims title up to the historic high water line.¹¹ This issue needs resolution.

Endnotes:

1. The 1989 "Land Protection Plan for Grand Canyon" specifies 24,288 acres (p.1) as inholding. Recent evaluation through the Parks Geographic Inventory System (May 1993) indicates that the total acreage between the NPS boundary (one-quarter mile east of the river) to the rim is approximately 17,237 acres. The GIS system indicates that acreage between the river and rim is approximately 23,247 acres. Subtracted from this total is 6,010 acres based upon the boundary claimed by the NPS.

2. Grand Canyon National Park Enlargement Act (Act of January 3, 1975; Amended June 10, 1975. Public Law 94-31. 88 STAT 2089. Sec.4[a])." Within the boundaries of the Grand Canyon National Park, as enlarge by this Act, the Secretary of the Interior...may acquire land and interest in land by donation, purchase with donated or appropriated funds, or exchange."

3. The complex issue pertaining to the preservation of Grand Canyon wilderness resources involves ownership of lands east of the Colorado River in Marble Canyon (river mile 0 to 61). The National Park Service maintains ownership of land one-quarter mile east of the east bank of the Colorado River, while the Navajo tribe insists on title to at least the east river bank. The following argument supports NPS ownership claims and sufficiently questions Navajo title to lands within a quarter of a mile of the south bank as to warrant additional legal opinion.

A provision (sec. 28) of Arizona Enabling Act of 1910 (36 Stat 574-575),

reserved to the United States...all land actually or prospectively valuable for the development of water powers or power for hydro-electric use or transmission and which shall be ascertained and designated by the Secretary of the Interior within five years after the proclamation of the President declaring the admission of the State.

The date of the subsequent presidential proclamation was February 14, 1912.

Water Power Designation No. 7. Arizona No. 4 (February 9, 1917, submitted within 5 years of the presidential proclamation, as specified by Arizona Enabling Act) reserved for water power purposes "all land of the United States...within a quarter of a mile of the Colorado River" including townships from Glen Canyon m to the Little Colorado River.

The Navajo Boundary Act of June 14, 1934, (48 Stat 960, not

codified in the United States Code) established the western boundary of the Navajo reservation from the intersection of the Colorado at the Arizona-Utah border "down the south bank of that stream to its confluence with the Little Colorado River."

Significantly, the Act further states:

There are hereby excluded from the reservation as above defined all lands heretofore designated by the Secretary of the Interior pursuant of section 28 of the Arizona Enabling Act of June 20, 1910 (36 Stat. L. 575), as being valuable for water-power purposes and all lands withdrawn or classified as power-site lands, saving to the Indians, nevertheless the exclusive right to occupy and use such designated and classified lands until they shall be required for power purposes or other uses [emphasis added] under the authority of the United States.

Proclamation 3930 of January 20, 1969, established Marble Canyon National Monument. The easterly boundary of the Monument was to be:

...the western boundary of the Navajo Indian Reservation (which is described by the act of June 14, 1934, as the south bank of the Colorado River to its confluence with the Little Colorado River excluding from the reservation all lands designated by Secretary of the Interior pursuant to section 28 of the Arizona Enabling Act of June 20, 1910 [36 Stat 575], as being valuable for water-power purposes and all lands withdrawn or classified as power-site lands)....

The proclamation abolished "any reservations or withdrawals" within the Monument. The western boundary was described in detail. The northern boundary was defined as the north line of T39N, R7E to its intersection with the western boundary of the Navajo Indian Reservation as prescribed by the act of June 14, 1934 (48 Stat. 960). This northern boundary is a few hundred yards south of the new Navajo Bridge construction site.

In an opinion dated June 16, 1969, the Departmental Field Solicitor in Santa Fe stated:

In conclusion, considering, in particular, Water Power Designation No 7 Arizona No. 4, and the Act of June 14, 1934, as well as the proclamation establishing the Monument, the east boundary of the Monument is located on a meandered line generally north-south, one quarter mile to the east from the east or south bank of the Colorado River. This line is also the west boundary of the Reservation [emphasis added].

The 1934 Act, while stating that lands in power site withdrawals are not part of the Reservation, also saved for the Navajos exclusive rights of occupancy and use of such withdrawn lands,

until such lands were "...required for power purposes or other uses...." The Field Solicitor opined that setting the withdrawn lands aside as part of Marble Canyon National Monument constituted "other uses." Consequently the exclusive rights of occupancy and use that the Navajos held to these non-Reservation lands ended on that date.

The Grand Canyon Enlargement Act of 1975, 88 Stat. 2089, states that the Grand Canyon's easterly boundary, as depicted on a map of December, 1974 (#113-20-021-B) is "...subject to any valid existing rights under the Navajo Boundary Act of 1934...." The map shows the easterly cliffs of Marble Canyon as the park's easterly boundary. Since the above lands within 1/4 mile of the bank of the Colorado River were not part of the Reservation as defined by the 1934 Act, they are not subject to "...any valid existing right under..." that Act. Thus, the National Park Service has title to, and management jurisdiction and responsibility for, the lands that lie within 1/4 mile of the east bank of the Colorado River in Marble Canyon.

4. The 1980 Wilderness Recommendation (modified 1977 Wilderness Recommendation, p.16) revised the original 277-mile (Paria to Grand Wash Cliffs, 17,009-acre) river corridor to the 235-mile (12,236 acres) section between Navajo Bridge and Separation Canyon. No formula or other rationale is given regarding the corridor area; however, the average acreage per mile is approximately 52 acres per mile. Based upon an average corridor width of approximately 430 feet, and an average of 52.07 acres per mile, acreage of the river corridor from 0.1 miles downstream of Navajo Bridge to Mile 87.1 (approximately 82.6 miles) is approximately 4,300 acres. The river corridor in the western Park extends from 0.1 miles west of the Silver Bridge (Mile 88) to Separation Canyon (Mile 239.5), approximately 151.5 miles, or approximately 7,890 acres. Total acreage for the river corridor is approximately 12,190 acres, slightly less than the 1980 recommendation.

5. Wilderness Act. 1964. Act of September 3, 1964, Public Law 88-577. 78 Stat. 890. See Section 2.

6. U.S. Department of the Interior, National Park Service. 1988. Management Policies. Chapter 6:3.

7. "Land Protection Plan for Grand Canyon National Park." 1989. Document on file at the Division of Resources Management, Grand Canyon National Park, pp.4,6.

8. 1989 "Land Protection Plan," p.6.

9. See U.S. Department of the Interior, National Park Service. 1991 (April). "Draft Authorities for Water Resources Decision Making on the Colorado River: Glen Canyon National Recreation Area; Grand Canyon National Park; and Lake Mead National Recreation Area." Document on file at Division of Resources Management, Grand Canyon National Park, pp.63-65. Following the decision in Montana v. United States and Utah Division of State Lands v. United States,

and in absence of specific and explicit language in the treaties and reservations for other Federal purposes and in the statute that admitted Arizona to the Union, it is assumed that Arizona holds title to the bed of the Colorado River in Grand Canyon.

See also, 1989 "Land Protection Plan," pp.4,6.

10. In U.S. v. Brown, the Court of Appeals addressed the question of the ability of the NPS to regulate activities within Park boundaries where the waters (and the beds of the waterbodies) are owned by the State. It said the ownership is not relevant when the Federal Government is acting under the Property Clause to regulate activities to protect visitors and wildlife. Therefore, under this reasoning, if there is a reasonable connection between the regulation and the purpose for which the Park was established, the NPS can act to promote and protect park purposes even when such actions may conflict with State authorities.

11. U.S. Department of the Interior. 1976. Solicitor's Opinion regarding the Hualapai Indian Reservation--Grand Canyon National Park boundary at the Colorado River. Memorandum on file at Division of Resources Management, Grand Canyon National Park. See also "Final Wilderness Recommendation, Grand Canyon National Park (1993 update)," endnote #7, pp.10-11.